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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/750,354	12/31/2003	David C. Wolfe	20031027-001	9467

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SUD-CHEMIE INC.  
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LOUISVILLE, KY 40210

EXAMINER

BROWN, JENNINE M

ART UNIT PAPER NUMBER

1755

DATE MAILED: 04/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/750,354

Applicant(s)

WOLFE ET AL.

Examiner

Jennine M. Brown

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 November 2005.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-14 and 16-21 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-14 and 16-21 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

### ***Claims Analysis***

According to MPEP 2113, "[e]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985) (citations omitted). The examiner is interpreting claims 1-21 as product by process claims and as such the patentability depends upon the product itself and not necessarily the process by which the product is produced, unless applicant comes forward with evidence establishing an unobvious difference between the claimed product and the prior art product.

### ***Claim Rejections - 35 USC § 102/Claim Rejections – 35 USC § 103***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-4, 6-8, 10-14, 16-21 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Hoffman, et al. (US 6224793 B1).

See entire document. Hoffman, et al. disclose an active catalyst (col. 3, l. 61-col. 6, l. 6) having a protective coating material ("encapsulating agent") comprising a crystallizable or thermoplastic polymer (col. 2, l. 60-col. 3, l. 58; col. 6, l. 48-61). The catalyst would inherently be spherical, hemispherical, ellipsoidal, oval, domed or flaked. The transition point of the polymer is between 40-250 degrees C in the molten liquid state (col. 9, l. 48-60; col. 10, l. 20-25). The particles have a particle size of about 10 micron to about 3000 microns (col. 11, l. 30-36). The hydrocarbon material is polyethylene, polyethylene glycol (col. 6, l. 56-57). The concentration of the catalyst is preferably 70 weight percent or less of the encapsulating agent (col. 47-57). Particle

sizes are given for air milled and spray dried compared to rotating disk (col. 16, l. 4-col. 17, l. 56).

Since the prior art appears to disclose the invention as claimed on the basis of inherent property characteristics which either anticipate or render the claimed product obvious, an alternative 35 U.S.C. 102/103 rejection is deemed appropriate and the burden of proof that it does or does not shifts to the applicant as in *In re Best* 195 USPQ 430, 433 (CCPA 1877).

Claims 1-14, 16-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Daage, et al. (US 6624204 B1).

See entire document. Daage, et al. disclose a wax coated oxidized catalyst (col. 9, l. 60-col. 10, l. 20) wherein the wax comprises between 1 to 50% of the mixture (col. 6, l. 48-53) and the particle size is from 1-500 microns (col. 8, l. 11-13). The catalyst would inherently be spherical, hemispherical, ellipsoidal, oval, domed or flaked. The density of the catalyst would inherently be greater than that of the hydrocarbon material or the catalyst because the catalyst would coat the wax if the opposite were true.

Since the prior art appears to disclose the invention as claimed on the basis of inherent property characteristics which either anticipate or render the claimed product obvious, an alternative 35 U.S.C. 102/103 rejection is deemed appropriate and the burden of proof that it does or does not shifts to the applicant as in *In re Best* 195 USPQ 430, 433 (CCPA 1877).

***Response to Arguments***

Applicant's arguments filed 11/23/2005 have been fully considered but they are not persuasive.

Hoffman, et al.

Applicant's arguments that Hoffman, et al. are related to microencapsulation rather than pastille preparation technology, is noted. The features upon which applicant relies (i.e., pastille preparation technology, scales of production, form of a powdered catalyst throughout processing and into the final enrobed product, the active agent of prior art is a liquid at processing temperatures) are not recited in the rejected claims, which are drawn solely to a catalyst pastille. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Applicant has not yet distinguished sufficiently the composition of the claimed product with that of Hoffman, et al., rather than arguing the difference in the catalyst's method of production.

Hydrocarbon resins, which encapsulate a catalyst, meet applicant's claimed limitation of a catalyst coated with a protective hydrocarbon coating material, as is disclosed in their specification on page 5, line 17. Furthermore, the prior art has an overlapping particle size with that claimed as disclosed herein above. Applicant's specification states that the prior art enrobed catalysts are less dense than the coating material which would prevent settling inherently, whereas a more dense powdered

catalyst would eventually settle to the bottom if the coating is not kept in a semi-solid state, therefore the temperature is above the congealing point of the coating material. Because the catalyst of Hoffman, et al. undergoes rapid solidification after contact with the resin from about 40 degrees Celcius or greater and applicant's specification states that the blender is held from about 0 degrees Farenheit to about 50 degrees Farenheit above the congealing point of the coating material, even the temperatures are overlapping during the enrobing step, thus would meet the semi-solid state mentioned in applicant's specification. Applicant has stated that the Hoffman, et al. reference discloses the encapsulated particles may reach a size of 3000 microns which is also an overlapping value with that of instant claim 17. As such, the examiner has maintained the rejections herein above.

Daage, et al.

With regard to applicant's arguments that Daage, et al. that the catalyst would not have been formed into pastilles or any shape that is spherical, hemispherical, ellipsoidal, oval, domed or flaked, have not been considered convincing because a catalyst immobilized in a large block of wax would not be easy to handle, transport or place into a catalyst bed for further reaction with the activating materials. Since the Daage, et al. reference discloses many places of physical size separation of the catalyst by physical means, as well as its intended use in fluidized be, slurry, bubbling bed and the like. Were the enrobed catalyst not in a separated state, such as those listed above, the catalyst would be non functional at best and an explosion hazard upon

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removal of the coating material at worst. Regarding the novelty of the density of the catalyst in the enrobed material, examiner has interpreted the applicant's statement to mean that the processing method itself is the novelty and not that the catalyst which is enrobed is the denser material. As such a method requiring judicial processing methods for processing the catalyst would be the novelty and not the catalyst composition itself. Regarding the distinction of the uniformity of the material, it would have been obvious to disperse the material more uniformly via mixing in the same way that homogenizers, blenders and sonicators are used because these methods are known to provide a uniform coating over a material.

#### ***Prior Art of Record***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Newly cited PTO-892 is considered pertinent to applicant's disclosure, but have not been cited against applicant's claims as prior art.

#### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the



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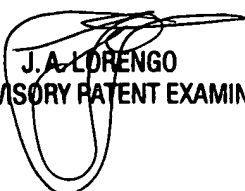
shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennine M. Brown whose telephone number is (571) 272-1364. The examiner can normally be reached on M-R 9:30 AM - 7:30 PM; Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on (571) 272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

jmb

  
J. A. LORENGO  
SUPERVISORY PATENT EXAMINER